

**Excerpted English translation of the Notice of Reasons
for Rejection**

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Notice of Reasons for Rejection

Patent Application No.	2000-386082
Drafted Date	Heisei 16, August 5 (2004)
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Applied Provision	Article 29, Clause 2, of the Patent Law

<<<Final>>>

This application should be rejected for the reasons mentioned below. If you have any opinion against this, you are requested to file an argument within sixty (60) days from the date of dispatch of this notice.

Reasons

The inventions set forth in the following claims of this application are rejected according to Article 29, Clause 2 of the Patent Law, since they could easily have

been made by a person with ordinary skill in the art to which the inventions pertain, on the basis of the inventions described in the distributed publications listed below in Japan or a foreign country prior to the filing of the subject application.

Note

◇ Regarding Claims 1 and 2

Cited Reference 1: JP-A-9-270271

Cited Reference 2: W099/49531 Pamphlet

Cited Reference 3: JP-A-2000-182600

Cited Reference 4: JP-A-11-273736

Cited Reference 5: JP-A-2000-243384

In Cited Reference 1, there is a description that, in a production of a non-aqueous secondary battery, after a monomer solution compatible with an electrolyte solution is immersed in a laminate of a positive-electrode material, a negative-electrode material and a separator, the monomer solution is geled; and the thus-obtained gel is immersed in an ethylene carbonate solution being dissolved therein an electrolyte, to prepare a gel containing the electrolyte. In addition, there is also a description that a monomer and a polymerization initiator may be dissolved in a non-aqueous solvent being dissolved an electrolyte in advance, and then react them (see paragraph

[0005] of the Cited Reference 1).

Cited Reference 2 describes a multi-layer polymeric gel electrolyte prepared by the steps of: forming a thin film-like structure of a mixture of a photo-polymerization initiator and an electrolytic solution containing decandiol diacrylate and LiPF_6 ; and irradiating with UV light thereon, to cause spinodal phase decomposition. Further, in Cited Reference 2, there is described an example in which the multi-layer polymeric gel electrolyte is used as an electrolyte of a lithium secondary battery (see pages 8 to 9 of the Cited reference 2).

In Cited Reference 3, there is a description that after an electrolyte solution prepared by mixing an electrolyte solution containing LiBF_4 with a two functional acrylate monomer represented by [chemical formula 1] is applied on a positive electrode mixture, a polymer is prepared by polymerization of the monomer by electron beam irradiation, to use the thus-obtained polymer as a gel electrolyte of a lithium secondary battery (See paragraphs [0035] to [0050] of the Cited Reference 3). In addition, there are also descriptions that the electrolyte has micropores of 1 μm or less; and that liberate (free) liquid electrolytes existing in the micropores and the gel electrolyte are in the state of being intermingled with microscopically (see paragraph

[0038] of the Cited Reference 3).

Cited References 4 and 5 each describe a method of producing a lithium secondary battery in which after a component for electric power generation being integrated a positive electrode, electrolytes and a negative electrode, and not being immersed in any non-aqueous electrolyte solution, is formed, a non-aqueous electrolyte solution is immersed therein, to cause gel of the electrolytes.

In the invention described in the Cited Reference 1, it is recognized that a person having an ordinary skill in the art can easily attain to integrate a laminate of a positive-electrode material, a negative-electrode material and a separator, according to well-known techniques described in the Cited References 4 and 5. Further, in the invention described in the Cited Reference 1, it is also recognized that a person skilled in the art can easily attain to polymerize and cross-link a monomer solution according to the Cited References 2 and 3 in a well-known manner.

As regards the inventions in claims, excepted the claims indicated in this notice of reasons for rejection, no reason for rejection is found at this stage. If any reason for rejection is newly found, the reason for

rejection will be noticed.

Reason why this notice should be made final

1. This is the Notice of Reasons for Rejection necessary to notify only reasons for rejection occurring by claim amendments which responded to the previous Final Notice of Reasons for Rejection.